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# Unemployment Insurance and Job Search Productivity

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## Scope and theme

The objective of this study is to evaluate the efficacy of the Unemployment Insurance Regular Benefits (UIRB) program on job search productivity. In addition to their use of a theoretical search model, the authors have introduced certain innovative ideas to the empirical work. The study focuses on the linkages between UIRB parameters and behavioural responses of the unemployed first, and then evaluates these responses' influences on job-search outcomes.

In the study, job search intensity is identified as the *input* to the search process; re-employment wage and re-employment probability are viewed as the *outputs* of search activities. The linkages between input and outputs and the interdependence among them are all integral parts of the quantitative-analytical framework.

## Data sources and methodology

The study uses data from the "National Employment Services (NES) Evaluation" panel survey conducted by Employment and Immigration Canada between 1986 and 1988. Two cohorts of Canada Employment Centre (CEC) clients were surveyed, each over a 24 month period. Each cohort was interviewed at the time of initial contact and at subsequent 2-month, 6-month, 12-month and 24-month follow-up interviews. The time periods for the two cohorts overlapped partially, with the

first covering September 1986 through August 1988 and the second January 1987 through December 1988.

The NES panel data set is unique in Canada in the amount and type of rich, detailed information gathered on job search activities in successive waves of interviews with CEC clients. In the data, job search activity is reflected in the number of contacts between unemployed persons and possible sources of job offers such as visits to employers, visits to employment centres, consultations of newspaper advertisements, visiting union job halls, etc. The level of search effort, estimated expenses and reservation wages are reported by a large random sample of CEC respondents. This survey data was supplemented by UI administrative data to present a fairly comprehensive picture of the employment and UI claim history for CEC clients.

The authors construct a search intensity index, based on the weighted averages of various job search activities, to summarise these search components. In addition, they use specific econometric methods to circumvent various technical difficulties.

## Empirical findings

### *UI and search intensity*

Elapsed duration of unemployment plays a more important role in determining job search intensity than UI benefits.

Search intensity does not depend significantly on whether or not the individuals are eligible for unemployment insurance benefits. The only noticeable effect is that claimants who are entitled to 40-to-49 weeks of benefits seem to search harder than those who are entitled to 50 weeks, by an amount roughly equal to 5 per cent of the average intensity index.

The search effort is quickly established after job separation and is sustained at a quasi-constant level for the next 9 months. Thereafter, search intensity declines steadily, and finally stabilises at a much lower level after 18 months. For all practical purposes, the job seeker then quits searching.

### *UI and re-employment wages*

The study finds evidence of a positive effect of UI benefits on the re-employment wage rate but the size of this effect is relatively small.

This finding is, nevertheless, consistent with the concept that UI benefits help to finance a period of job search so as to allow the unemployed the time to select the more appropriate new job available.

The results show that ineligible workers have re-employment wages roughly 7 to 9 per cent lower than UI claimants with 50 weeks of benefits.

Eligible individuals with less than 30 weeks of benefits and those with 30 to 40 weeks of benefits have re-employment wages about 5 per cent lower than those with 50 weeks of benefits.

The re-employment wages of individuals with 40 to 50 weeks of benefits are virtually the same as those with 50 weeks.

### *The probability of re-employment*

Job search intensity increases a UI claimant's chance of re-employment.

Unemployed workers tend to "hang on" to their pre-unemployment (old) wages. The higher the pre-unemployment wage, the lower the probability of re-employment.

The regional unemployment rate and weeks of UI benefits remaining are negatively correlated with re-employment probability.

## **Policy implications**

The results of this study are of interest to policy-makers. The conventional wisdom is that the existence of UI benefits lowers the intensity of job search on the part of the unemployed and thereby raises the unemployment rate. The results of this study find only a minor effect of UI benefits upon job search intensity.

The study of re-employment wages is also of policy interest because of the prevalent view that UI benefits simply cause the postponement of search activity. This viewpoint would imply that persons receiving lengthy benefits would do no better in terms of re-employment wages than persons receiving benefits for a short period only. This does not seem to be the case here.

The existence of a lengthy period of benefits appears to have a positive effect on re-employment wages. This effect is not necessarily constant for all levels of benefits and there is evidence that almost all of the beneficial effects of UI on re-employment wages are obtained with less than 50 weeks of benefits. Furthermore, at least half of the favourable effects of UI benefits seem to come with 30 to 40 weeks of benefits. The cost of having no benefits versus a full 50 weeks of benefits is in the order of 7 to 9 per cent of the re-employment wage rate. If a person with 50 weeks of benefits received a new hourly wage rate of \$8.00, then an otherwise identical person with no benefits would have received only about \$7.32 an hour.

The direct policy implications of this result require some analysis of benefits versus costs. The difference of \$0.68 increase in the hourly wage attributable to 50 additional weeks of benefits works out to \$1,360 per year for a 50-work-week year. Against this is the cost of 50 weeks of benefits at a rate of, say, \$176 per week or \$8,800 per year. This figure is an upper bound because most unemployed individuals do not exhaust their benefits. Although the present fiscal stance of the government may question the view that "UI benefits are *pure transfers*, they cost the society nothing from the social point of view", a pay-back period of ten years might be enough to make this investment worthwhile from the government as well as the social perspectives.



On the other hand, the results also suggest that much of these benefits would be obtained with fewer weeks of benefits. In particular, 40 or fewer weeks of maximum benefits could give the same wage boost but with a lower lump-sum cost and therefore a shorter payback period. The length of the payback period can be crucial. If the UI effect on re-employment wages is only temporary, or if individuals tend to stay in jobs for fewer than ten years, then the cost of the UI subsidy might be too high.

There exists evidence that a person with no benefits may enjoy a re-employment probability 21 per cent higher than an otherwise equivalent person with 50 weeks of benefits. According to the authors' estimate, the 50 weeks of benefits may increase the total unemployment rate by 2.3 percentage points. This estimate is admittedly rough and the measured effect does not separate out regional extended benefits nor the intensity effect and the re-employment wage effect. It serves only to quantify approximately the impact of having everyone with 50 weeks of benefits versus everyone with no benefits.

## Conclusions

In summary, several interesting conclusions are drawn from this study. First, UI benefits do not appear to have a significant negative effect on job search productivity as measured by the search effort. This may be surprising given work on UI experiments in the United States. At present, these results are based on methodologies too dissimilar to permit any direct reconciliation. It would seem, however, that a future topic of work could be a UI experiment in which search intensity is measured as it was in the CEC panel data set.

Job search productivity was also measured by the outputs of the search process, i.e. re-employment wages and probabilities of leaving unemployment. The study finds evidence that the existence of UI benefits can raise re-employment wages. The size of this effect is not so large as to imply that it warrants the costs; however, further benefit-cost analysis based on the results of the study could clarify this question. What is clear is that much of the wage gain can be obtained with a benefit period shorter than 50 weeks.

The effect of UI on the re-employment probability output of job search suggests that quantitatively important effects of UI on aggregate unemployment exist. The bottom line result of this study is that UI benefits have a non-negligible effect on re-employment probability that may translate into a detrimental effect on the total unemployment rate. In exchange for this adverse effect, UI benefits indirectly enhance re-employment wages. This positive effect is not large, and may be available with shorter maximum benefit periods. In assessing the role of UI benefits, this positive value of "UI benefits and job search" needs to be set against the costs of UI in terms of benefit payments and higher unemployment.

## Biographical notes

**Pierre Fortin** is professor of economics at the Université du Québec à Montréal. He is currently editor of *L'Actualité économique*, member of the editorial board of *Canadian Public Policy*, member of the Council of Advisors of the C.D. Howe Institute, member of the Canadian Productivity Network, and member of the Committee on Social Trends of the United Way (Montréal). His present research interests include wage and employment dynamics, fiscal and monetary policy, social policy, and population economics. Professor Fortin has numerous scholarly publications in many well-recognised academic and professional journals.

**Paul Storer** received his Ph.D. from the University of Western Ontario and is currently a professor in the Economics Department at the Université du Québec à Montréal. He served as an economist at the Bank of Canada for 3 years prior to his Ph.D. program. His fields of specialisation include monetary economics, macroeconomics, labour economics, and econometrics.

**Marc Van Audenrode** was awarded his Ph.D. from the University of California in Berkeley and is now an economics professor at the Université du Québec à Montréal. His areas of specialisation include causes of unemployment, economics of labour market institutions, and employment contracts.

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Copies of the full technical report (when finalised) and further copies of this summary are available from:

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